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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/599,027 06/22/00 ICHIKAWA N 016887/0999

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PM82/1002

EXAMINER

PALABRICA, R

ART UNIT	PAPER NUMBER
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3641

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DATE MAILED: 10/02/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

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Office Action Summary

Application No.

09/599,027

Applicant(s)

ICHIKAWA ET AL.

Examiner

Rick Palabrica

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-26 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-9 (Invention I), drawn to a structural member, classified in class 212, subclass 33⁺.
 - II. Claims 10-25 (Invention II), drawn to a subcombination process of corrosion suppression by deposition of corrosion potential reducing substance, classified in class 376, subclass 306.
 - III. Claims 26 (Invention III), drawn to a combination process of corrosion suppression by deposition of corrosion potential reducing substance and control of water quality and iron concentration, classified in class 376, subclass 305

The inventions are distinct, each from the other because of the following reasons:

- Inventions I and II are related as apparatus and process. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP §806.05(e)). In this case, the apparatus of Invention I can be used to practice another and materially different process such as that for chemical tanks containing corrosive liquids.

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- Inventions II and III are related as combination and subcombination.

Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination (Invention III) as claimed does not require the particulars of the subcombination (Invention II) as claimed, such as the specific substance for reducing the corrosion potential. Additionally, the subcombination (Invention II) has separate utility such as in an underground container with inner lining to prevent leakage of hazardous material.

- Inventions I and III are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP §806.05(e)). In this case, the apparatus of Invention I can be used to practice another and materially different process such as that for structures requiring coating for cathodic protection.

Restriction for examination purposes as indicated is proper because these inventions are distinct for reasons given above and:

- They have acquired a separate status in the art as shown by their different classification (Inventions I and II, and Inventions I and III);
- The research required for Group (I) is not required for Group (II and III).

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

2. If either Invention I or Invention II is elected, applicant is further required under 35 U.S.C. 121 to elect one of the following disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable (currently, no claim is generic).

A. Wherein the corrosion potential reducing material is a photocatalytic substance that produces an electromotive force under an irradiation of light or radioactive ray (e.g., see claim 10).

B. Wherein the corrosion potential reducing material is a metal or metal compound that forms the photocatalytic substance under specified temperature and pressure conditions (e.g., see claim 10).

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3. If embodiment A is selected, applicant is further required under 35 U.S.C. 121 to elect a single species of the photocatalytic substance from among the thirteen compounds disclosed. This additional requirement is to facilitate examining due to the broad range of compounds disclosed and claimed as suitable (see claims 7 and 13).

4. If embodiment B is selected, applicant is further required under 35 U.S.C. 121 to elect a single species of the photocatalyst-forming substance from among the several metals or metal hydrates disclosed. This additional requirement is to facilitate examining due to the broad range of substances disclosed and claimed as suitable (see claim 8).

5. If Invention II is elected, applicant is further required under 35 U.S.C. 121 to elect one of the following disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable (currently, no claim is generic).

C. Wherein the corrosion reducing substance is in the form of a solution or suspension and added to reactor water in order to adhere or form a film on the structure surface (see claim 15).

D. Wherein the corrosion potential reducing substance is made to adhere or be deposited on the structure surface by spraying (see claim 16).

E. Wherein the corrosion potential reducing substance is made to adhere or be deposited on the structure surface by physical vapor deposition (see claim 16).

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F. Wherein the corrosion potential reducing substance is made to adhere or be deposited on the structure surface by chemical vapor deposition (see claim 16).

6. If Invention II is elected, applicant is further required under 35 U.S.C. 121 to elect a single metal element (either iron or nickel) for the base material of the structural member. This additional requirement is to facilitate examining due to the diversity of elements disclosed and claimed as suitable (see claim 18).

7. If Invention II is elected, applicant is further required under 35 U.S.C. 121 to elect one of the following disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable (currently, no claim is generic).

G. Wherein the corrosion oxide film consists of a double layer, i.e., inner and outer (see claim 20).

H. Wherein the corrosion oxide film consists of a single layer (see claim 20).

8. If embodiment G is selected, applicant is further required under 35 US.C. 121 to elect a single species for removal of the outer layer by decontamination (i.e., chemical, electrolytic or laser). This additional requirement is to facilitate examining due to the broad range of decontamination alternatives disclosed and claimed as suitable (see claim 20).

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9. If either Invention II or Invention III is elected, applicant is further required under 35 U.S.C. 121 to elect one of the following disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable (currently, no claim is generic).

J. Wherein the control of the reactor water is by hydrogen injection.

K. Wherein the control of the reactor water is by methanol injection.

10. Upon election of one of the inventions identified above as I, II and III, applicant is further required under 35 U.S.C. 121 to elect a single noble metal (i.e., Pt, Rh, Ru or Pd) for the surface material of the structural member. This additional requirement is to facilitate examining due to the broad range of materials disclosed and claimed as suitable (e.g., see claim 11).

11. Applicant is advised that a reply to the species election requirements must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims

are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rick Palabrica whose telephone number is 703-306-5756. The examiner can normally be reached on 8:00-4:30, Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 703-306-4198. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-0285 for regular communications and 703-305-0285 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist, telephone number is 703-308-1113.

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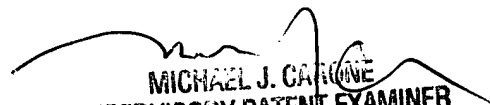
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RJP
October 1, 2001


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SUPERVISORY PATENT EXAMINER
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